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FINNEGAN, HENDERSON, FARABOW, GARRETT &
DUNNER LLP
1300 I STREET, NW
WASHINGTON, DC 20005

EXAMINER

JAGANNATHAN, VASUDEVAN SALEM

ART UNIT PAPER NUMBER

1714

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

07/870,759

Applicant(s)

CHENARD ET AL.

Examiner

Vasu Jagannathan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 176-183, 193-198, 200-207, 209-217, 219-225, 227-233 and 237-323 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 176-183, 193-198, 200-207, 209-217, 219-225, 227-233 and 237-323 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 06/070,503.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____

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The following action is given in response to a Court Order from the U.S. District Court for the District of Columbia in Civil Action No. 99-2559 (RBW) remanding the present application so that the Patent Office can issue an Office Action.

Note: A "courtesy copy" of an earlier version of this action was dispatched to applicants. This version differs from the earlier one in two respects: grammatical changes and insertion of paragraph 7 (art that is relevant but not applied). Hence the thrust of the examiner's position remains fundamentally the same.

Claim Rejection - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 176-183, 219-225, 243 and 244 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase "adding to the vinyl halide resin" which appears in both steps (a) and (b) of the cited independent method claims 176 and 243 causes confusion since it is unclear as to which is the vinyl halide resin being referred to in step (b). It is noted that the addition of an organotin compound to a vinyl halide resin in step (a) would yield a modified vinyl halide resin whereas step (b) refers to an (unmodified) vinyl halide resin. In other words, what is the connection between the vinyl halide resins in steps (a) and (b)? It is suggested that applicants consult page 20, 3rd full paragraph of the present specification, which discloses adding ingredients separately

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or as a mixture to a polymer composition, in order to reformulate the cited claims for compliance with the statute while exercising due caution to avoid introducing any new subject matter.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 193-198, 200-207, 209-217, 237-242, 247-264 and 280-323 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 11-16 of U.S. Patent No. 4,412,897 (assigned to Ato Chimie) one of whose co-inventors, Jean-Yves Chenard, is the same as that in the present application. Although the conflicting claims are not identical, they are not patentably distinct from each other because the patented sterilized composition claims represent species of the presently claimed generic composition whose scope is inclusive of both sterilized and unsterilized compositions. That is, the claims overlap in scope as in a genus (present claims) to species (patented claims) relationship. In a situation of this type where applicants have patented species claims to a sterilized composition that "anticipates" the present genus claims to a composition as such, it is proper to levy an

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obviousness-type double patenting rejection as stated by the Federal Circuit Court at 2016 in In re Goodman 29 USPQ2d 2010, 2016 (Fed. Cir. 1993).

It is observed that the patented sterilized composition comprises the same stabilizer mixture combination of organotin and mercapto alkanol ester of a monocarboxylic acid, i.e. the so-called “reverse” mercapto ester referred to by applicants, and a vinyl halide polymer as those in the cited present claims. Although some of the present claims included in this rejection do not recite explicitly such a polymer they are, however, formatted in open language (“comprising”) that does not exclude other ingredients. It is further observed that Examples 2-5 in Table I at col. 8 of US 4,412,897 reveal that *en route* to being sterilized with ionizing radiation, the patent discloses compositions that are identical to the ones in the present claims.

It is noted that due to the fact that the publication as well as the filing dates of US 4,412,897 are subsequent to the effective filing date and foreign priority date of the present application, while an obviousness-type double patenting rejection is not precluded, the cited patent does not qualify as prior art under any subsection of 35 USC 102.

Preliminary Remarks Regarding The Following Prior Art-Based Rejections

3. The present application has a lengthy prosecution history that stretches back *via* a chain of applications to the earliest parent application 06/070,503 filed August 28, 1979, now abandoned, which in turn claims foreign priority to French documents FR 7912005 and 7824863 filed on May 11, 1979 and August 29, 1978, respectively. It is noted that apart from a break in continuity with the filing of 06/254,313 as a CIP of the ‘503 application, all other applications in this chain are “straight” continuations. One application that was filed subsequently as a

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continuation of the present case, 08/399,216, has since been abandoned. The present case is therefore the sole pending application in a chain of six applications all told.

The preceding office action in this application, an examiner's answer, was affirmed with respect to a 35 USC 103(a) rejection as set forth in the Board decision mailed February 23, 1999 (Paper No. 85). In reaching that decision the Board indicated that the applicants had failed to provide a comparison with the closest prior art (presumably, Gough et al. US 3,928,285) i.e. the record was lacking in data that ought to have shown a comparison between primary reference Gough's stabilizer composition of organotin borate as modified by the addition of a mercapto alkanol ester versus the claimed stabilizer composition. In the Civil Action that followed the applicants provided a new declaration by Dr. Christopher A. Bertolo (see exhibit B in Plaintiff Elf-Atochem's Opposition to USPTO's position) in which the information sought by the Board appears to have been supplied. From a study of Bertolo's declaration it is evident that applicants' stabilizer composition outperforms Gough 285's organotin borates taken in combination with mercapto alkanol ester with respect to both the "Whiteness" and "Yellowness" indices as shown by the data in Tables 1 and 2 at pages 11 and 14, respectively, in the declaration. In light of the evidence provided by Bertolo's declaration, which was not available to the Board, it is deemed that the previously affirmed 103(a) rejection over Gough '285 alone or in combination with other references as utilized by the examiner of record at that time can no longer be sustained.

In updating the search record in this case since it was remanded to the Office, certain references not cited by either the examiner of record prior to the remand or the applicants have come to light. Since the dates of these references are such that they are properly applicable against the present claims, rejections utilizing them are set forth below. It is noted that while

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there was a discussion in the Board's decision regarding the "effective" filing date to which some claims containing organotin compounds are entitled to when such compounds contain a tin-halogen bond, this does not play any role in the following rejections since all of the references anyway qualify as prior art for date purposes under 35 USC 102(b).

Claim Rejection - 35 USC § 102 Against Claims Where The Organotin Compound Has A Tin-Halogen Bond

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 176-183 and 296-323 are rejected under 35 U.S.C. 102(b) as being anticipated by either Gough (US 4,021,407) or Kugele (US 4,062,881).

Gough '407 discloses a stabilizer composition for vinyl halide polymers (col. 3, lines 27-28) which comprises an organotin halide borate (see formula in col. 3, lines 42-50) with an organic thiol which is a mercapto alkanol ester or a "reverse" ester of the kind in the present claims (see formula (f) at col. 4, lines 6-10) including a proper match with the particular structure of R and R' in the mercapto alkanol ester as set forth in the present claims. Particular note should be made of col. 8, lines 17-18 which explicitly discloses embodiments of mercapto alkanol esters, such as bis(2-mercaptoethyl) terephthalate and mono(2-mercaptoethyl) adipate, both of

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which clearly possess the “reverse” mercapto ester linkage, $R-(C=O)-O-(CH_2)_n-SH$, whose significance has been expounded upon at length in the pages of the file-wrapper record herein. Attention is drawn to Tables 1 and 2 at col. 12 which teach that the amount of organic thiol varies from 0.17 to 0.36 wt % relative to the vinyl halide resin which falls within the corresponding amount range recited in some of the present claims. Several significant points are to be noted.

First, newly submitted Bertolo’s declaration comparing Gough ‘285’s stabilizer containing organotin borates against the claimed stabilizer composition is without merit in the present fact situation since in Gough ‘407’ the organotin borates contain a tin-halogen bond which both distinguishes it structurally in a chemical sense from Gough ‘285 used at appeals (which lacks such a tin-halogen bond) and, at the same time, brings the reference disclosure within the scope of the claims.

Second, any argument that Gough ‘407 does not exemplify a mercapto alkanol ester would be deemed as unpersuasive given that Gough ‘407 (i) discloses a selected list of but four kinds of organic thiols of which mercapto alkanol esters constitute one kind and (ii) specifically identifies by their chemical names two embodiments of mercapto alkanol esters, and, last but not least, evidently deems the mercapto alkanol esters to be so preferred that he goes one step further and claims them as well (see claims 2 and 12 at cols. 13 and 15). It is important to note that anticipation does not necessarily require exemplification. According to MPEP 2131.02, if one of ordinary skill in the art can “at once envisage” a specific compound such as applicants’ mercapto alkanol esters within the generic formula, the compound is anticipated. Given that Gough ‘407 explicitly gives the generic formula for alkanol mercapto esters and then goes on to specifically

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name two of them, it will be readily conceded that the standard referred to above in MPEP 2131.02 for achieving anticipation has been fully met.

Kugele '881 disclose organotin stabilizers for polyvinyl chloride that are obtained as a product of mixing organotin compounds containing a tin-halogen bond and an mercapto alkanol ester. Thus, see e.g. Examples 1-9 at cols. 11-12 that depict the product of mixing organotin compounds containing a tin-chlorine bond such as alkyltin chlorides with mercapto alkanol esters. Attention is drawn to Examples 3 and 4, especially, since they utilize 2-mercaptoethyl stearate which is a preferred embodiment of the ester in some of the present claims.

Particular note should be made of col. 1, lines 25-33 in Kugele '881 which recognizes the criticality of mercapto alkanol esters, in particular, over "non-reverse esters" for the purposes of mixing with an organotin compound to obtain a suitable stabilizer for vinyl chloride polymers. It is the examiner's position that the prior art could not have made a better statement of the essence of applicants' invention.

In the event that applicants argue that in their invention there is no mixing of the kind disclosed by Kugele '881, then attention is directed to the fact that at least some of the present claims recite that the stabilizer composition is "a product produced by mixing" specified ingredients (e.g. claims 296 and 307). The implication is clear – there is nothing in the claimed language that excludes products obtained by mixing organotin compounds and mercapto alkanol esters regardless of the nature or type of the mixing process. If anything the claimed "product" positively reads on a reaction product. Therefore, since Kugele '881 also discloses a product also obtained by reacting organotin compounds containing tin-halogen bond(s) and mercapto alkanol esters, it is only proper to hold that this reference anticipates the present claims.

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Claim Rejection - 35 USC § 102 or 103 Against All Claims Where The Organotin Compound Has A Tin-Sulfur Bond or a Tin-Halogen Bond

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 176-183, 193-198, 200-207, 209-217, 219-225, 227-233 and 237-323 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Molt (US 3,931,263).

Molt discloses organotin stabilizers for polyvinyl chloride that are obtained as a product of mixing organotin compounds containing a tin-sulfur or a tin-halogen bond and a mercapto alkanol ester. As one illustration of the disclosure of Molt, see, in particular, the reactions depicted at col. 13 of Molt. The examiner has enclosed the specific reaction he has in mind

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within a “box” for applicants’ convenience in a copy of Molt that is supplied with this rejection. It is evident that Molt exemplifies a specific mercapto alkanol ester admixed with an organotin compound containing both a tin-sulfur and a tin-halogen bond.

In the event that applicants argue that in their invention there is no mixing of the kind disclosed by Molt, then attention is directed to the fact that at least some of the present claims recite that the stabilizer composition is “a product produced by mixing” specified ingredients (e.g. claims 241 and 245). The implication is clear – there is nothing in the claimed language that excludes products obtained by mixing organotin compounds and mercapto alkanol esters regardless of the nature or type of the mixing process. If anything the claimed “product” positively reads on a reaction product. Therefore, since Molt also discloses a product also obtained by reacting organotin compounds containing tin-sulfur and tin-halogen bond(s) and mercapto alkanol esters, it is only proper to hold that this reference anticipates the present claims.

While Molt has listed a host of organotin compounds that anticipate this portion of the claims (see cols. 4, 5, 7 and 8), it is apparent that not every embodiment of the mercapto alkanol ester in the claims is also explicitly taught (although it cannot be ruled out that these embodiments of the ester can indeed be envisaged by one of ordinary skill in this art) by Molt whose preferred embodiment for this ester appears to be a mercaptoethyl C_7H_{15} fatty acid ester which certainly anticipates the generically claimed mercapto alkanol ester. See the “boxed” portion at col. 13 cited above. However, absent evidence to the contrary, it would have been obvious to one of ordinary skill in the art that any mercapto alkanol ester would really have

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sufficed for Molt's purposes as along as it could be mixed with an organotin compound containing a tin-sulfur or tin-halogen bond as depicted e.g. at col. 13 of the reference patent.

Citation of Relevant Prior Art

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wilkins (US 3,855,179) discloses a stabilizer that is a combination of two organotin compounds where one of them contains a isooctyl mercapto acetate group which is also a feature in some of the present claims. Kugele (US 3,979,359) describes organotin compounds containing tin-sulfur and tin-mercapto alkanol ester linkages. GB 1,349,913 divulges a stabilizer that is a mixture of an organotin compound containing a tin-sulfur bond and a "non-reverse" mercapto ester.

It is observed that some of references cited by applicants in the application that was filed as a continuation of the present one, 08/399,216, now abandoned, have not been cited in this application. For completeness of record, it is deemed that these references ought to be cited here. Accordingly, these references are identified on the attached PTO Form 892 with an asterisk beside them to indicate that copies are, however, not being furnished.

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Conclusion

The examiner will be available for an interview if such will serve to materially advance prosecution in this application.

Any inquiry concerning this communication should be directed to Vasu Jagannathan at telephone number (703)306-2777.

July 16, 2002

Vasu Jagannathan
VASU JAGANNATHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700